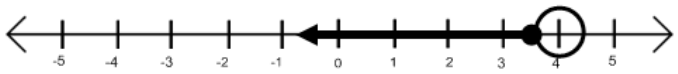
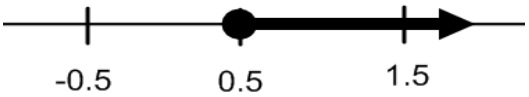
Name:_____Period:_____Date:_____

Statements of Inequality: Read from Left to Right $a<b$ *reads* "a is less than b" $a>b$ *reads* "a is greater than b" $a\leq b$ *reads* "a is less than or equal to b" $a\geq b$ *reads* "a is greater than or equal to b" $a\neq b$ *reads* "a is not equal to b" $a=b$ *reads* "a is equal to b"	A **number line** increases from left to right. 1. Draw a number line and label the range. 2. Place a mark on the number: a. **circle** *excludes* the number (< or >) b. **dot** *includes* the number (≤ or ≥) 3. Draw a line from the number in the direction associated with the symbol a. arrow to the **left** (< or ≤) *"less than"* b. arrow to the **right** (> or ≥) *"greater then"*

Solve and draw the inequality. And then write the statement in the form of the *"variable is....."*

Ex	$x<4$	Ex	$x+3.5\geq 4$
Draw the number line: Use a circle to exclude 4. Point the arrow to the left (decreasing).  The solution for x is all values less than 4. *"x is less than 4"*		Solve the equation to isolate the variable, x. $x+3.5\geq 4$ $-3.5 \quad -3.5$ subtract from both sides $x\geq 0.5$ Now draw on number line. Use a dot to include the number and point the arrow to the right (increasing).  *"x is greater than or equal to 0.5"*	

1	$-2\geq x$	2	$7.5\geq 3.5+x$

3	$x<-1$	4	$-2.20\geq -0.20+x$

5	$-25 \leq x$	6	$100 > x - 35$

7	$x < -23$	8	$x + 53 \geq 2(10 - 5)$

9	$-2 \geq x$	10	$x - b > 5$ Solve for x if b = -5

11	$x - b > 5$ Solve for x if b = 10	12	
			Marcus left his house with $20.00. Later he went to a store and purchased some snacks. Use x as the money Marcus has remaining. Write the inequality to represent how much money Marcus might have.